

In the Claims

Claims 1-3 (cancelled)

Claim 4 (previously presented): A method of forming semiconductor circuitry, comprising:

providing a monocrystalline silicon substrate;

forming a mask which covers a first portion of the substrate and leaves a second portion uncovered;

forming a recess in the uncovered portion;

at least partially filling the recess with a semiconductive material that comprises at least 1 atomic percent of an element other than silicon;

removing the mask;

forming a first semiconductor circuit component over the first portion of the substrate;

forming a second semiconductor circuit component over the semiconductive material that at least partially fills the recess;

wherein the substrate comprises a bulk monocrystalline silicon structure, an insulative material over the bulk monocrystalline structure, and a monocrystalline silicon mass over the insulative material, and

wherein the recess is formed through the monocrystalline silicon mass and to the insulative material.

Claim 5 (cancelled).

Claim 6 (previously presented): The method of claim 4 wherein the semiconductive material that at least partially fills the recess comprises a III/V compound semiconductive material.

Claim 7 (previously presented): The method of claim 4 wherein the semiconductive material that at least partially fills the recess comprises silicon and at least 1% carbon.

Claim 8 (previously presented): The method of claim 4 wherein the semiconductive material that at least partially fills the recess consists essentially of silicon and at least 1% carbon.

Claim 9 (previously presented): The method of claim 4 wherein the semiconductive material that at least partially fills the recess consists of silicon and at least 1% carbon.

Claim 10 (previously presented): The method of claim 4 wherein the semiconductive material that at least partially fills the recess consists essentially of a III/V compound semiconductive material.

Claim 11 (previously presented): The method of claim 4 wherein the semiconductive material that at least partially fills the recess comprises Si and Ge, with the Ge being present to an atomic concentration of from about 1% to about 20%.

Claim 12 (previously presented): The method of claim 4 wherein the semiconductive material that at least partially fills the recess consists essentially of Si and Ge, with the Ge being present to an atomic concentration of from about 1% to about 20%.

Claim 13 (previously presented): The method of claim 4 further comprising, before at least partially filling the recess with the semiconductive material, providing an insulative material spacer along a sidewall of the recess; and wherein the at least partially filling the recess with the semiconductive material comprises providing the semiconductive material along the insulative material spacer.

Claim 14 (original): The method of claim 13 wherein the insulative material comprises silicon nitride.

Claim 15 (original): The method of claim 13 wherein the insulative material comprises silicon dioxide.

Claims 16-56 (cancelled).